Vol 12: Index

activation, of eggs 228–30
adrenal hyperlasia 21
amenorrhoea
  hypothalamic 110–15
  lactational 245–73
androgen
  and sexual behaviour 60, 68, 80–2
  deficiency 18
  neural effects 33–40
  plasma levels in women 68
  resistance 17
  sexual differentiation 2–3
  testicular descent 12–43
anoestrus
  in farm animals 245–73
antiandrogens 17

blastocyst reconstruction 230–2
bovine trophoblast protein-1, bTP-1
  antiviral activity 161
  identification 152–4
  relationship to interferons 154–8
  synthesis 168–70
  see also interferons
breed markers 290–1
breeding systems, domestic species 289–308

chimeras 230–2
chromosomal imprinting
  evidence for 233
  mechanisms 234–9
circadian rhythms
  properties 321–4
  controlling systems 324–6
contraceptives 57–85
  acceptance of 58
  and psychiatric illness 71–2
  and premenstrual syndrome 73–7
  discontinuation of 66, 69–70
  factors affecting choice of 61–4
  endocrine effects of 66–8
  mechanisms mediating behavioural effects 80–5
  side-effects, assessment of 64–6
    on sexuality 77–85
    on well-being 57–77, 80–5
corpus luteum
  interferons and luteolysis 163–6
  post-partum 271–2
  regression 126–7
corticotrophin releasing factor (CRF) 125
cremaster muscle
  and testicular descent 8–43
  attachments 8–10
  contraction 13, 32
  innervation 32, 36
cremaster nucleus 40
cryptorchidism 1–43
  animal models 15
  causes, in humans 13, 17–18, 41–3
  incidence 13, 23–5, 33–6
  treatment 14, 19–21
cultures, uterine cells 181–208

descendin 16, 27
domestic livestock
  breed, definition 289
    markers 290–1
  genetic conservation 289–308
  lactational anoestrus 245–73

early pregnancy factor 148
embryo
  activation of genome 225–39
  development 225–39
  interaction with uterine cells 205–7
  protein secreted by 147–70
endometrial cells
  culture 190–6
  identification 188–90
  interaction with embryos 205–7
  isolation 185–7
  human 185–7
  metabolisms, effect of interferons 164–5
  mouse 187–8
  proliferation and death 198–200
  prostaglandin secretion 165, 203–5
  protein secretion 200–3
  protein synthesis 200–3
  rabbit 188
  rat 187
  ruminants 188

fertilization
  genomic contributions 225–39
follicle growth,
  in menstrual cycle 96–128
  in post-partum period 258–61
  model, in primates 123–8
follistatin 106
FSH,
  secretion during menstrual cycle 96–128
  during lactation 250
  pulsatile secretion 100

Gene expression,
  in domestic breeds 290–308
  in embryo 225–39
  methylation and 234–7
  see also chromosomal imprinting
Genetic conservation 289–308
Genitofemoral nerve 10, 32–43
GnRH,
  and follicular growth and ovulation 93–128
  and testicular descent 14, 19–21
  deficiency 110–15
  during lactation 248–73
  pulsatile administration 95, 115–23, 250–2, 269–71
  pulsatile secretion 97–101, 251–73
  hypothalmic control of 107–10, 252–8
gonadotrophin secretion, during menstrual cycle 93–128
gonadotrophin hormone releasing hormone, see GnRH
gonadotrophin surge inhibitor 104, 106, 120
gubernaculum 5–43
  development 5–12
  nerve supply 104
  position 5–12
  structure 5–12
  transection 30–1

hCG, and testicular descent 14, 19–20
5 hydroxytryptamine 82–3
hypothalamus,
  and amenorrhoea 110–15
  control of GnRh secretion 101–2, 107–10
    during lactation 248–73
  opioid system 107–110
  suprachiasmatic nucleus, in circadian rhythms 324–51

implantation, in vitro models 205–6
inbreeding 294–6
inhibin 96, 106
interferon, *see* bovine- and ovine-trophoblast protein-1
  effects
    on uterus 164–66
    on immune systems 166–68
  in pregnancy
    humans 162–63
    mice 162
    pigs 162
  prevention of luteolysis 163–66
  receptors 165–66
IUD, *see* contraceptives
IGF-1 265–6

Kallman's syndrome 18, 110

lactation,
  and anoestrus 245–73
  effect of suckling 253–4
LH
  during menstrual cycle 93–128
  during lactation 249–73
  effects of nutrition on 265–7
  in anemorrhoea 110–15
  midcycle surge
    humans 103, 113, 120
    farm species 260–1, 269–71
  pulsatile secretion 97–128
Luteolysis, *see* corpus luteum, interferons

Macaque, testicular descent 21
male effect, on oestrus 268
mammary gland 262–3
maternal recognition of pregnancy 147–71
  in humans 127, 148–9
  in pigs 149
  see also ovine- and bovine- trophoblast protein-1
Melatonin 319–51
  action
    central sites 338–43
    mechanism of 344–9
    peripheral sites 343–4
  biosynthesis 327–31
  extrapineal production 330–1
menstrual cycle, hormone secretion during 96–128
  see also contraception, amenorrhoea
methylation and gene expression 234–7
Mullerian ducts 2–4, 22–6
  persistent duct syndrome 22–6
Mullerian inhibitory substance 2–3,
  and cryptorchidism 22–9, 41–43
  and persistent Mullerian duct syndrome 22–6

nutrition, effects post-partum 265–7

oestradiol,
  regulation of gonadotrophin secretion 102–106
oestrogens,
  and cryptorchidism 15, 21–2, 41
  and sexual behaviour 60, 80
  blockage of MIS action 26–30
  see also contraception
opioids,
  antagonists 254–8
  hypothalamic control of GnRH 107–10, 125–7, 254–8
oral contraceptives, see Contraception
ovine trophoblast protein-1, oTP-1 149–71
  antiviral activity 161
  effect on isolated endometrial cells 207
  identification 149–52
  relationship to interferons 154–8
ovulation,
  control of, human 96–128
  induction post-partum 268–71

parthenogenetic development 227–30
persistent Mullerian duct syndrome 22–6, 41
pineal,
  sympathetic innervation 329
  see also circadian, melatonin
pituitary
  secretion of gonadotrophins 96–128
    during lactation 248–73
  see also FSH, GnRH, Hypothalamus, LH
platelet activating factor 148, 206
post-partum period,
  and lactational anoestrus 245–73
  pituitary activity in 249–73
premenstrual syndrome 73–7
  see also contraception
progesterone,
  and sexual behaviour 60
  in menstrual cycle 97–128
  regulation of gonadotrophin secretion 104–5
  releasing vaginal device 269
  see also contraception
prolactin,
  and lactational anemorrhoea 261–2
prostaglandin
  secretion by endometrial cells 165, 203–5, 207
  and uterine involution 263–5

retinohypothalamic tract 325

seasonality, and lactational anoestrus 267–8
  and circadian rhythms 335–8
sex hormone binding globulin 68
sexual behaviour,
  hormonal control 59–61
  side effects of contraception 57–85
sexual differentiation 2–5
  Spinal nucleus of bulbocavernosus 36–40
sexuality, effects of contraceptives 57–85
suckling,
  effects on hypothalamic-pituitary axis 253–4
spina bifida 33–6
spinal nucleus of bulbocavernosus 36–40
steroids,
  actions 196–8
superior cervical ganglion 329–51
suprachiasmatic nucleus, in circadian rhythms 324–30

testicular feminization 17–20, 22, 28–30, 36–7, 107
testis, descent 1–43
testosterone, *see* androgen
5 a dihydrotestosterone, *see* androgen
time, and melatonin secretion 319–51
transgenesis 234–7, 292
trophoblast proteins, *see* interferons; also ovine and bovine trophoblast proteins

uterus
  cell types 182–3
  effects of interferons 164–6
  involution 263–5
  stromal-epithelial interactions 183–4
  secretion of prostaglandins 263–5

vitamin B_6 83

Wolffian ducts 2–5

X-chromosome expression 232–3

Zeitgebers, *see* circadian rhythms

NOV 2 9 1990